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Copy 11 of 12

18 July 1973

MEMORANDUM FOR: Director, CIA Reconnaissance Programs

SUBJECT: Program Progress Report

Forwarded herewith are three copies of the IDEALIST Program Progress Report for the period 1 April 1973 - 30 June 1973.

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WENDELL L. BEVAN, JR.
Brigadier General, USAF
Director of Special Activities

Attachments -
As stated [redacted] 25X1

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C/SAS/O/OSA: [redacted] (10 July 1973)

Distribution:

1 - D/CRP
2 - D/CRP
3 - D/CRP
4 - DDS&T Reg
5 - D/SA
6 - SAS/O/OSA
7 - D/O/OSA
8 - IDEA/O/OSA
9 - INTEL/O/OSA
10 - D/M/OSA
11 - AMS/OSA
12 - RB/OSA

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Section 1

IDEALIST

OPERATIONAL SUMMARY AND STATUS

(1 April 1973 - 30 June 1973)

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I. OPERATIONAL MISSION SUMMARY

Thirteen IDEALIST TACKLE operational missions were alerted during this period.

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All missions were planned to be flown no closer than 25 nautical miles to the China mainland coast. The following is a summary of the missions flown:

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2. Mission C143C was flown along the north central China coast. This mission was designed to collect SIGINT and photo information using the "H" configuration. The northern portion of the route was not flown due to unsuitable weather. The pilot reported 20 percent coverage of the planned southern flight lines prior to aborting the route for weather.

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programmed targets, two bonus COMIREX, and two non-COMIREX targets were photographed.

3. Mission C153C was planned along the central China coast from Quemoy north to Shanghai. This mission was flown

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utilizing the "H" configuration. Due to weather, the northern portion of the mission was not flown; however, the pilot diverted to the east and flew the southern portion of the

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25X1 mission. programmed targets and two bonus non-COMIREX targets were photographed. 25X1
25X1

4. Mission C163C was flown around 25X1
the Paracel Islands and along the coast of Hainan Island to collect SIGINT and photo information using the "H" configuration. the pilot 25X1
reported no unusual activities. programmed 25X1A
targets plus one bonus non-COMIREX target were photographed.

5. Mission C183C, photo 25X1
mission, was flown along the north central 25X1
China coast. Only 30 percent coverage of the planned flight lines was obtained due to unsuitable weather along three portions of the route. Several (more than 10) fast moving ships heading east were sighted abeam Shanghai.
25X1 programmed targets were covered. Three bonus COMIREX 25X1
and five non-COMIREX targets were photographed.

6. Mission C193C was flown in the 25X1
vicinity of the Paracel Islands and Hainan Island, utilizing the "H" configuration. Detailed analysis of the mission revealed that 80 percent of the route was covered by clouds. 25X1
25X1 targets programmed were covered. Three bonus targets 25X1
were covered; two COMIREX and one non-COMIREX.

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25X1 II. [ ] GENERAL

25X1 A. [ ] RED DOT - Six sorties were flown in support of continuing film tests using various film types and camera configurations.

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25X1 D. [ ] B-3 Camera Test - Seven sorties were flown with the modified "B" configuration.

25X1 E. [ ] "H" Lens Test - Eleven sorties were flown to test the new color corrected lens.

25X1 F. [ ] Four sorties were flown to provide photography in support of this test program.

25X1 G. [ ] COMPASS TRIP - Four sorties were flown over the Central Ferry Station poppy plantings. The Delta and multi-spectral configurations are being used for this phase.

25X1 H. [ ] - Three sorties were flown to photograph the areas flooded by the Mississippi River.

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Section I
Page 4

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III. [redacted] PILOT AND AIRCRAFT STATUS (AS OF 30 JUNE 1973)

A. Detachment "G" (Edwards AFB - North Base)

Aircraft 2 U-2R

Pilots [redacted]

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B. Detachment "H"

Aircraft 2 U-2R

Pilots [redacted]

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25X1

[redacted]

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IDEALIST

DEVELOPMENT SUMMARY AND PROGRESS

(1 April 1973 - 30 June 1973)

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I. [redacted] AIRFRAME

A. Inspect and Repair as Necessary (IRAN) - A decision to extend the IRAN cycle from 2500 hours to 3400 hours was made on 3 May 1973. This decision was made in view of the favorable condition found on U.S. Air Force airframes previously submitted for IRAN.

B. J-75P13B Engine - The installation of improved third stage turbine blades to increase engine life expectancy has continued during this quarter as engines come due for overhaul. Two additional sets of improved first stage turbine blades have been procured and a three engine test program will commence during the first quarter of FY 1974. These improvements should permit extension of Hot Section Inspection (HSI) an additional 100 hours, and of Time Between Overhaul (TBO) an additional 200 hours.

C. U-2R Flight Test and Operational Training Summary

1. IDEALIST Program accomplishments in U-2R aircraft since introduction include 11,270.6 hours on 3476 sorties as of 30 June 1973.

2. Flight test and operational data are depicted below:

	1 APR-30 JUN FLIGHTS	1 APR-30 JUN TIME
1 - 051	42	110.5
2 - 053	44	102.4
3 - 054	53	204.3
4 - 055	47	171.7
TOTAL	186	588.9

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II. [redacted] PAYLOAD

A. "H" Configuration - Serial Number 002 reentered flight testing during this quarter; however, a secondary or "ghost" image was observable in high oblique angle testing. The mirror has been removed from the configuration and returned to the contractor's facility for further testing and analysis. At the end of this quarter, ultrasonic scanning of the mirror's brazed joints indicated separation had occurred in two areas. A math model indicated differential temperature gradients due to brazing separation and short term temperature changes could also be affecting test results.

B. "B" Configuration

1. Serial Number 229 experienced defocusing problems early in flight testing and was returned to the contractor's facility for solution. After duplication of in-flight problems in the altitude chamber, a plane of best off-axis focus was established and the unit reassembled with this plane aligned with the platen. Following further altitude chamber testing, the unit reentered the flight test program on 20 June 1973.

2. Serial Number 230 has completed all functional ground testing and altitude chamber testing and is scheduled to enter flight testing early in July 1973.

C. Delta Research Camera - The second f/3.5 apochromatic lens installation and variable slit modification to the scan heads of the Delta camera have been programmed to start during August 1973. The unit is scheduled to be in the modification process until January 1974.

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E. Q-E Bay Simulator - The Wright-Patterson Air Force Base simulator of Q-E Bay vibration, pressure, and temperature effects has been completed and will be operationally tested with an IRIS configuration during September 1973. Drawings necessary to construct hatches so that IDEALIST configurations can be tested in this simulator have been made available to the Wright-Patterson Project Office.

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	Sorties	Flying Hours	Det "G" Man Hours TAC Maint	Avionics
1 - 056	4	12.6	480	200
2 - 058	6	22.7	608	300
TOTAL	10	35.3	1088	500

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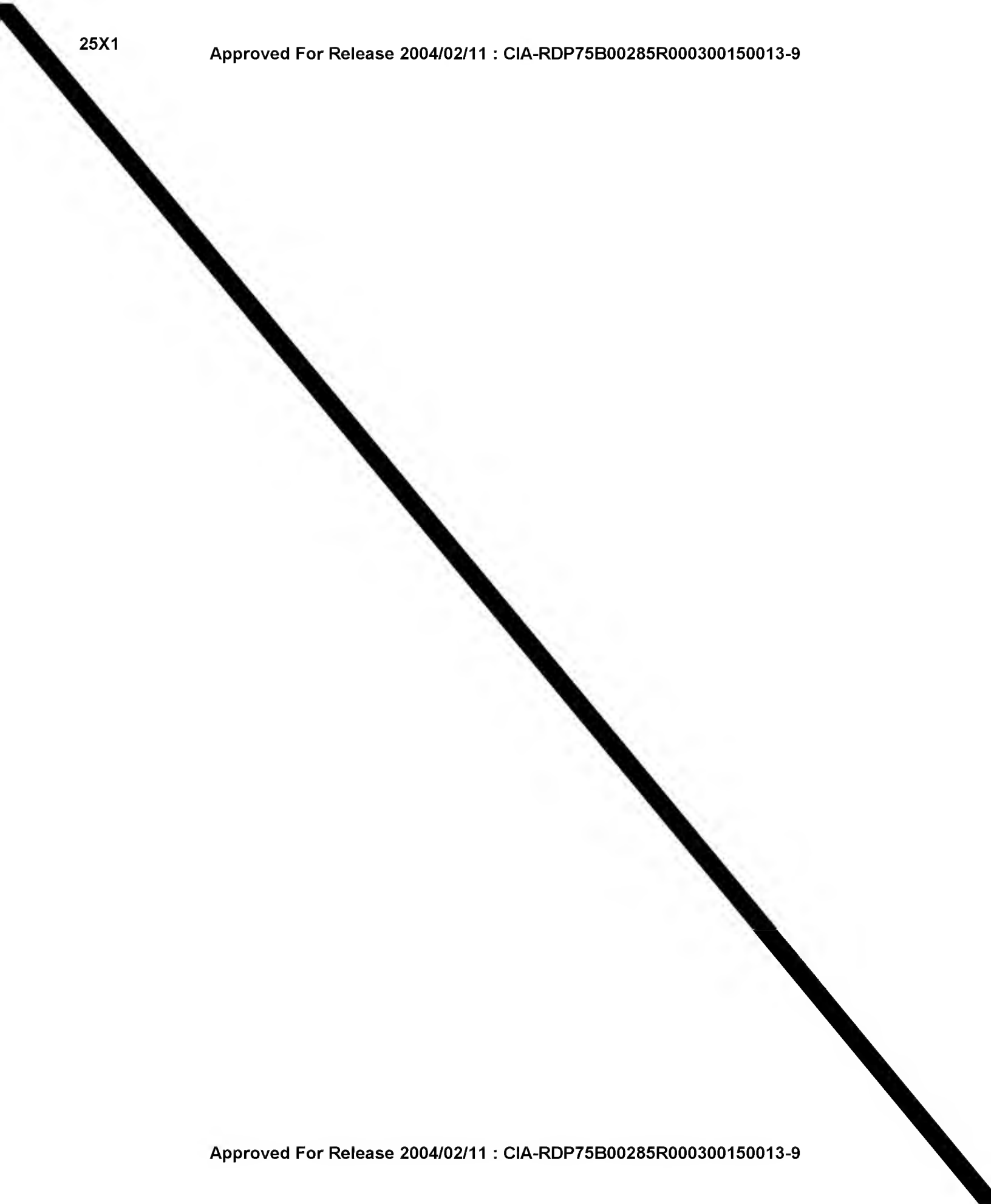

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B. [redacted] Life Support Activities

1. Shark Deterrent Screen - Contact has been made with Dr. C. Scott Johnson of the U.S. Navy, the inventor and principal investigator of a new shark deterrent device or as it is more commonly called, a shark bag. Dr. Johnson is forwarding one of the bags along with the early test results to Headquarters Life Support for evaluation. The major problem to date appears to be in miniturization packaging of this bag. In addition to its primary use in shark protection, the bag can also be used in overland survival as a sleeping bag, a water-collection device or for signaling.

2. Glove Bladder Improvement - The full pressure suit manufacturer, David Clark Company, is still investigating an improved bladder cloth for gloves. A weak area is evident in the stitching in the crotch of the fingers. Presently, in order to resolve this problem, a seamless glove has been fabricated using urethane as a part of the compound. Field evaluation should take place during the fall.

3. Helmet Bearing Seal Improvement - Six sets of redesigned seals are being field tested at Detachment "G". Initial results seem to indicate a considerable improvement, however, one seal did cause excessive abrasion to the mating teflon surface. The cause of this specific problem has yet to be identified.

4. S1010 Pilot Protective Assembly (PPA) Pressure Suit Fit Problem - It has become readily apparent in the past six months that the lower calf circumference must be increased for all subjects. Across the board enlargement in this area will be accomplished as pressure suits are returned to the factory for maintenance or rework.

5. Parachute Harness Retaining Strap - The RQ-225 parachute retainer strap that insures the proper position of the main riser has been causing some interference with the suit controller and vent hardware. The retainer is to be lengthened one inch and test jumps will be accomplished [redacted] in August 1973.

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6. Glove Disconnect - A full pressure suit glove disconnect has been redesigned to reduce weight and bulk, improve easy entry, and improve ventilation. Prototype hardware will be available in July 1973.

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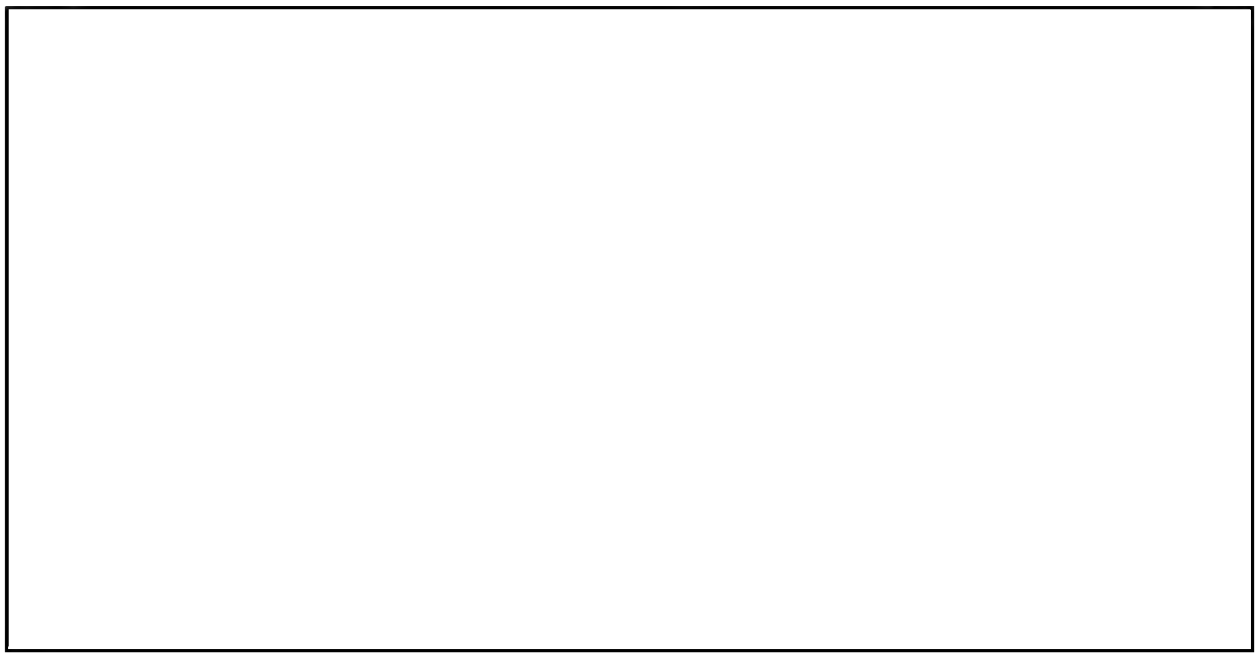

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